

**‘Transforming Labour’ at the Westrail Workshops, Midland WA,
1960s to 1990s.**

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Abstract.

The paper identifies ways in which labour was transformed at the Westrail Workshops, Midland, WA, from the 1960s to the 1990s. It examines the change from steam to diesel locomotives and the resulting impact on the various skilled trades, and the implementation of better health and safety practices. The paper discusses ways in which these changes affected the apprenticeship structure and examines whether safer, more inclusive work practices empower workers, making them more in control of their work place and their future.

The theme of this conference and of my paper is ‘transforming Labour’. The paper identifies ways in which labour was transformed at the Westrail Workshops in the Perth suburb of Midland from the 1960s to the 1990s by examining three major changes in work practices during that time. How did these changes affect or influence the apprenticeship and trades structure in the Workshops? Did safer, more inclusive work practices empower workers, making them more in control of their work place and their future? The paper examines the changes in work practices brought about by the change from steam to diesel locomotives, improved work safety practices and reforms to the apprenticeship system, including the shortening of trade apprenticeships from five to four years and the employing of female apprentices.

Background

For 90 years, the WAGR (later Westrail) Government Workshops at Midland, a suburb on the eastern edge of Perth, was the largest industrial Workshops in Western Australia. It was one of only three or four large workshops that trained apprentices in a range of industrial trades such as blacksmithing, boilermaking, fitting, mechanical and electrical engineering, machining, coach building and carpentry – skills required to build and repair locomotive engines and rolling stock, but which also fitted the men for a wide range of trades outside the railways. The Workshops was a tightly knit community, within which a range of sub-communities, centred on the different trades, thrived in a proud and highly competitive working culture. Widespread community outrage greeted the State Government’s decision to close the Workshops, but to no avail and the gates shut for the last time in March 1994 – just over 90 years after they first opened.

Despite the Workshops’ size and the significant role they had in training trades apprentices, they had received almost no scholarly attention until recently.¹ Since 1998,

however, the Workshops has been the subject of an extensive history project. Commencing with an oral history programme aimed at contacting and interviewing past employees, the project has extended (with the aid of ARC grant funds administered through Curtin University) into an archive of documents and photographs, a collection of tools and other objects, a DVD, a web page and a researched history of the Workshops. This paper is based on interviews and other material collected by the project.

The change from Steam to Diesel

Perhaps it is not entirely inappropriate that the Workshops are still strongly associated with the age of steam. In 2001, for example, when Media Studies students at Murdoch University produced a CD-ROM featuring interviews with past employees, they chose to intersperse the interviews with the sounds of a steam locomotive whistling and shunting.² For over two thirds of their existence, the Workshops produced and maintained steam locomotives. The hey-day of the Workshops, arguably, was from the 1940s to the 1960s, when the highest number of workers was employed, and the unions and 'craft consciousness'³⁴ were strong. The steam era, too, seems to have left a deeper impression upon those who worked there across both periods. When asked about changes at the Workshops over their period of employment, many workers who commenced in the 1950s or earlier would not hesitate in saying that the phasing out of steam locomotives and the introduction of diesels – a process that took over a decade – was the most profound change that they experienced.

The Workshops was designed to be a production line for the building and repair of steam locomotives. When a locomotive came in for an overhaul it arrived at the starting end, everything was pulled apart and cleaned and repaired before being re-assembled. During the course of an apprenticeship, irrespective of their ultimate trade, boys worked their way through the entire process and finished by knowing how the locomotives were constructed.⁵ The tradesmen with whom they worked, although specialists at their particular craft, be it boiler making, fitting or coach building, were trained in the same way – but there was also a hierarchy of skill, or strong 'craft consciousness'.

When the changeover from steam to diesel occurred at Midland, many of the workmen appeared to feel genuine regret about the loss of the steam locomotives. This is curious, because the changeover happened at a time when modern progress was greatly desired and vaunted and concepts such as 'heritage' scarcely registered on the horizon of public consciousness. Lucas Pitsikas was a Planner in the Boiler Shop in 1950 when the process of introducing diesel engines commenced. Pitsikas was sent to England – initially for three months but his visits stretched to 15 months – to study designs for diesels. He was impressed by the generosity of the English designers who even gave him spare copies of their drawings. Pitsikas was, perhaps predictably, very positive about the change. Yet he recalled that many workers felt 'much sorrow' although they expressed little resistance to the advent of diesel engines, despite a lengthy and difficult period of transition from steam, ending in the late '60s. Some workers left as a result of the change. Most received on-the-job training in handling diesels but the more ambitious augmented their practical work with study at night school, where Pitsikas taught tradesmen up to the level of foremen. Courses were available at the Railway Institute or

at the Perth Technical College, where the lecturers included UWA staff and the courses adequately covered the requirements for both tradesmen and theorists in the changeover from steam to diesel.⁶

One of the biggest transitions in the Workshops involved the changing demands and roles for the various trades occasioned by the move from steam to diesel. Steve Smith, who began as an apprentice boiler maker in 1972, in the final days of steam, recalled:

[B]oilmakers ... were the king, they were the guys who built these steam engines and the fitters just used to fit the components, you know ... With the demise of steam, boilermakers now were structural workers. We were building wagons and bridges and all sorts of things. [With] diesel engines, the fitters became king. Now, we [boilermakers] used to call fitters boilermakers with their brains bashed out, and blacksmiths [we regarded as being] boilermakers who couldn't quite make the grade. Yeah, there was a lot that used to go on about which trade was more important or more skilled or more craft-like than the other, but I think it was during this period of transition from steam to diesel that the whole hierarchal structure of the Workshops changed. [Some trades vanished completely, for example] the ladders, the guys who used to lag steam locomotive boilers. With no steam there was no work. You saw other trades such as electronics begin to emerge; in the steam days there were no electronics. So you had this major shift occurring.⁷

The existence of 'craft consciousness in the factory is confirmed elsewhere. In his history of the Amalgamated Engineering Union from 1920 to 1972, T.M. Sheridan remarks of the fitters and turners that they 'ever extended fraternal principles as far as to allow unskilled workers easy access to craftsmen's work' and they were 'undeviating' in the pursuit of 'their own (skilled) interests regardless of what anyone else in the labour movement thought ...'.⁸ Similarly, in his classic study, *Life in a Railway Factory*, first published in 1915, Alfred Williams stated that at the Swindon (UK) Workshops, 'the fitters are usually looked upon as the men *par excellence* of the [fitting] shed' partly because of their wide experience in a range of work places.⁹

The effect of this removal of craft status could be devastating for some workers. Blacksmiths, including Don Underdown who was at the Workshops from 1949 until 1993, gained work in new areas but lost it elsewhere. With dieselisation, the Workshops began making aluminium wagons instead of the old wooden ones; thus work that had traditionally required 'woodies' (carpenters') skills became blacksmiths' work. Blacksmiths had been 'going down the gurgler fast' at this point because the skills required to refit a steam locomotive were no longer needed. When a steam 'loco' came in for a refit, everything had to be cut off with an Oxyacetylene torch, con rods lengthened or shortened, the wheels fitted with new tyres that had to be shrunk on by the blacksmiths before being machined. Initially, nothing ever fitted, so every little bracket

had to be machined to fit. Consequently, the change to diesels meant a steep decline in the tasks performed by blacksmiths. According to Underdown, once the ‘steamies’ went, the number of blacksmiths operating individual fires in the main shop went down from around 87 to 19.¹⁰

The perception of a change in intake for the different trades is confirmed by the Minutes of the Apprentices Application Board which met annually to consider applications for apprenticeship vacancies. The following table indicates the changes in trades and the number of vacancies for trades between 1940 and 1979.

Table 1: Comparison of Trade Vacancies at the Midland Workshops in the 1940s and the 1970s.

Trade	1940-49	% of Vacancies	1970-79	% of Vacancies
Boilermaker	219	15.0	172	11.0
Fitter (mechanical)	461	32.0	611	39.0
Fitter (electrical)	36	2.5	128	8.2
Turner & Iron Machinist	196	13.6	121	8.0
Blacksmith	36	2.5	75	4.8
Car & Wagon Builders	184	13.0	–	0.0
Painters	48	3.3	41	4.1
Scale Adjuster	–		8	
Coach Trimmers	15	1.0	14	0.9
Moulder	89	6.2	48	4.8
Motor Mechanics	3		41	2.6
Coppersmith	22	1.5	25	1.6
Auto Electrician	–		1	
Carpenter	–		7	
Wood machinist	6		8	
Plumber	5		37	2.5
Electro Platers	–		7	
Sheet Metal Worker	3		13	0.9
Pattern Maker	11		8	
Trades recruited in number too small to be calculated as percentage		9.4		14.8
Total	1439	100.0	1552	100.0

From numbers listed in *Minutes of the Apprentices Application and Selection Board*, held in the Archives of the Westrail Workshops History Project, compiled by the author.

The most notable ‘demise’ of any trade was that of the Car and Wagon Builder, which constituted 13 per cent of the vacancies in the decade 1940-49 and none in the 1970s. Trades such as electrical fitters and plumbers, on the other hand, were increasingly in demand and between them constituted almost 11 per cent of vacancies for apprentices in the 1970s. Motor mechanics, similarly, increased from three apprentices

in 1940-49 to 41 (or 2.6 per cent of the vacancies) in 1970-79.¹¹ Adding to the unsettling of an environment that had long been regarded as stable and secure, other major changes were introduced in this decade.

Changes to the apprenticeship system

In the early 1970s, the trades apprenticeship was restructured and shortened from five to four years. Boys were accepted after completing their final year of high school, which meant that they were both older and better educated when they arrived at the Workshops to commence their training. During the 1970s and '80s, the entire class structure, based on the relationships between tradesmen and their trade assistants, apprentices and foremen, began to evolve into a quite different system, and by the late '80s, the trades even began to admit female apprentices.

When Don Underdown started at the Workshops as an apprenticeship blacksmith in March 1949, he found a rigid class system where apprentices were expected to learn by watching the tradesmen. Often 'you just blundered along on your own'. An early task was learning to drive a steam hammer, which he was expected to learn in about a week and 'then you're on your own'. The apprentice stood by the hammer 'not quite at attention but the next best thing to it. I believe in the early days they did stand to attention at the hammer'. When the blacksmith indicated he was ready, the apprentice lifted his hammer so that the white hot metal object could be placed underneath, and he would drive the hammer to forge the metal into the required shape. 'And God help you if you hit too hard and mucked it up; you'd get a belt across the ears. It was no use going to the boss and saying "he hit me" because when he came out they'd be waiting for you and they'd hit you again'. Underdown contrasted this with a later period when 'you daren't give an apprentice a backhander or, oh boy'.¹² Dave Moir's experience as an apprentice in 1977 was almost identical. Like Don Underdown, his first task was to master the steam hammer. He also stood all day and developed very sore legs from the effort.

The first couple of weeks you had to be with this guy and you just had to stand there and watch and look ... and he told you about it and [then] you got to actually put the little grease thing in and grease up the ram on it and towards the end of the first week he'd let you put a block of wood under it and give it a bit of a tap and so by the time you come to the end of the fortnight you're able to hammer out a bit of metal ...¹³

Apart from the practical work, the apprentices got their share of book learning by attending the Midland Technical College one day a fortnight. Don Underdown later attended classes specifically for blacksmiths at Fremantle Technical College. He appreciated being able to make his own tools in the second year of his apprenticeship.¹⁴

Bob Wells, who began his apprenticeship in 1963, saw no advantages in the shortened apprenticeship; it meant that boys were 'not fully trained' when they came onto the shop floor. Although the educational level was higher – boys were required to have their Leaving Certificate before applying – the four-year apprenticeship in the electrical trades and fitting trades did not, Wells believed, 'provide the time for the apprentices to actually

learn the significance of what they were doing'. Not only were these new apprentices 'not as dextrous as they ought to have been' but, in Wells' opinion they were not well suited to the Workshops as their higher level of education made them look down on the trades people and, especially, the trades assistants. Unlike Underdown and Moir, Wells tended to support the old-fashioned method, whereby an apprentice observing the way that his tradesman performed a task and then did it in exactly the same way. He believed that the apprentices who came after completing high school failed to understand that the 'education they were about to receive on the shop floor was a physical education in how the work was to actually be done'. Instead, 'they tended to look for answers out of books as to how a tradesman did their work and that's not how tradesmen work'.¹⁵

Bill Kirkham, Master of Apprentices from 1974 to 1988, was similarly sceptical about the value of the extra two years at high school.

Most of our apprentices were from year 10, some year 11 and 12 also. With the year 12s we found that they were not smarter than the year 10s ... In some cases it only showed that their parents were able to afford to keep their kids at school for another two years. A lot of [the year 12s] thought the trades were a bit tedious and they would much rather be involved in the professional side such as becoming academics and bank managers, whereas the year 10 – all he wanted to do was something with his hands, none of this academic stuff.¹⁶

Even so, Kirkham believed that the Year 12 graduates had greater maturity and capability and he encouraged them to enter the more demanding trades such as electrical and mechanical fitting and to study for a diploma or degree so that they could qualify as a draughtsman and later as an engineer. During the time that he was Master of Apprentices, Kirkham opened nine new apprentice schools to cater for far more than the original basic skilling, and he appointed young instructors who developed a good rapport with the boys. One class rebuilt a 1927 fire engine which was later placed in the Western Australian Museum. Others assisted in the building of the sailing ship, *Leeuwin*.¹⁷ The Workshops strongly encouraged apprentices to gain relevant educational qualifications. Nick Dragicevich, for example, stated that Westrail was 'a very forward organization for its time in that it encouraged apprentices to go to night school and to take on additional studies in drawing and drafting'. He put his own success down to the encouragement of Luke Pitsikas who advised him to learn to be a draftsman.¹⁸

The other major change in the apprenticeship system occurred when females were permitted to commence apprenticeships. This was a government requirement as part of its Equal Opportunity legislation. The females who took up this challenge were very few and only two completed their apprenticeship. Sindy Hunter completed her apprenticeship on the eve of the Workshops closure, and Mae Jean Parker completed hers elsewhere. Although she could not obtain a job in private enterprise after the closure, Hunter recalled her apprenticeship at the Workshops was of a happy and fulfilled time. She stated that the older tradesmen 'looked after' the female apprentices and were 'like fathers' to them.¹⁹ Her account was in stark contrast to the experiences suffered by many of the male apprentices only a decade or so earlier at the hands of older apprentices and the

younger tradesmen – and also with the experience of another female apprentice, related below. Elsewhere, the author discusses initiation rituals and bastardisation at the Workshops from the 1930s to the 1980s and draws the conclusion that one of the most important factors in the curtailing of these practices was the introduction of more comprehensive safety measures.²⁰

Occupational Health and Safety measures

A third major change in the Workshops was the introduction of more comprehensive safety measures, some of which stemmed from the passage in the WA Parliament of the 1986 Occupational Health and Safety Act. During the 1980s, the Trades and Labor Council (TLC) of Western Australia made a major commitment to improving safety on worksites. The TLC's commitment to occupational health and safety (OHS) issues was most clearly demonstrated by its appointment of Stephanie Mayman as OHS Officer in 1983, and an Industrial Democracy Officer, Tim Noonan, in 1984. Noonan's duties included assisting Mayman in preparing OHS information for unions, prior to the introduction of State Government policy allowing workers a greater role in promoting health and safety in the workplace. Mayman and the TLC Executive led a full-scale campaign to improve workplace safety.²¹ The campaign was launched partly in response to the finding that exposure to blue asbestos in mining townships such as Wittenoom was a direct cause of various forms of cancer. Wittenoom had been closed in 1978, although the State Government of Sir Charles Court investigated the possibility of moving the town to a nearby location, until it was realised that the health hazard was too great.²² The TLC campaigned to remove asbestos from worksites (including the Workshops) and to gain compensation for the victims of asbestos-related diseases.²³ Workshops employees commented on the minimal health and safety practices. Nick Dragicevich, admitted putting off having an x-ray because he feared what it might reveal as a result of his exposure to asbestos.²⁴ Boilermaker Graeme Bywater also mentioned his exposure to asbestos while working in the Salvage Section of the Workshops.²⁵

Prior to 1949, welders were the only workers to wear gloves. Then some of the European immigrants introduced gloves and other employees began to see the benefits and started getting their own pairs. The blacksmiths would get old welders' gloves and cut a piece out of them so that they slid over the hand and could be flipped back if a man needed to use his fingers. The only protective gear was a leather apron, heavy boots – not steel capped safety boots – and a hat. No goggles, nor ear muffs were worn, despite the fact that most accidents occurred to the eyes and that the working environment was often extremely noisy, resulting in many employees suffering from industrial deafness.

Blacksmith Dave Moir recalled his working in the environment in 1977. There were still no ear muffs and he was most affected by working in the spring shop setting leaf springs.

You used to hold the leaf springs with a pair of tongs and then your striker would hit it with a big sledge hammer and it wasn't done red hot, it was just warmed up so, being spring steel, being hard and tempered, it would really ring and give this high pitched ring so when you're bashing away

doing all these leaves you had to do a quota of so many sets of springs per day. When I worked up there it was the worst because I would go home and hear this constant ringing in my ears. It wasn't until later on [that] I realised it was all the banging and banging 'cause when I worked elsewhere I didn't have the problem, but I s'pose the damage was already done by then.²⁶

Workers provided their own clothes. No uniforms were issued by Westrail until years later. Moir remarked that the Workshops 'improved a lot in 17 years' – that is, by 1994 when the closure occurred.

Similarly, when Don Manning arrived at the Workshops as a 15-year-old apprentice in 1947, safety and sanitary standards were very poor. 'When I started work and if you were the person wearing gloves, you were a poofter and if you were wearing glasses, you are a faggot'. When he left 43 years later, 'the environment was very good ... because it had to comply with the OHS Act – eating rooms, all the protective equipment you could wish for'. Originally, workers had to heat their own water to wash in. Some would leave dirty water for others; some would urinate in the water (until it was like 'pee soup'), others would never change their clothes. Manning knew of one man who bought new overalls at the beginning of the year and discarded them, unwashed, at the end of the year.

Manning testified to the fact that the OHS legislation was directly responsible for changed practices as the Workshops was obliged to comply with the Act's requirements. Because so many trades were present, the involvement of the whole Workshops community was necessary to build a safe working environment, and this included the appointment of safety representatives who liaised with union representatives and the Safety Officer, and the organization of safety training for workers. Manning admitted that, even in later years, it was:

...very hard to get people involved because they always think that they know all about it. It was hard and it was a challenge ... It's a matter of changing attitudes and that's why they have safety awards for the staff to make them take safety seriously. Lots of chaps have said to me that outside [businesses] have no safety compared to the Workshops where they used to work before.²⁷

As Safety Officer, Manning had an advisory role, and he was in frequent contact with the Department of Occupational Health and Safety to obtain advice and information on problems as they arose. When Manning commenced his duties in 1979/80, there were 536 loss time injury,²⁸ and 7813 working days lost with a staff of 2500. By 1988/89, there were 63 loss time injury and 641 working days lost with a staff of 1200. Manual handling was a big factor in loss time injury. Workers had to be trained to lift properly so they would not injure their backs. If a serious injury occurred, the Safety Officer had to notify the Workshops manager and the OHS Department who would send an inspector. The Safety Officer would investigate, 'bring the community together to look at it', and

discuss ways of avoiding a repeat of the circumstance. It is easy to see, therefore, that dangerous initiation and ‘prank’ practices that led to unnecessary accidents – and, in a few cases, fatalities²⁹ – could scarcely be passed off as ‘industrial accidents’ under such close scrutiny. Even so, one of female apprentices, Mae Jean Parker, experienced an initiation that included being ‘crucified’, as well as being subjected to a number of other ‘pranks’ such as having the steel toe caps of her boots welded to the floor.³⁰

Conclusion.

This paper has identified three major ways in which labour was transformed at the Westrail Workshops in the Perth suburb of Midland from the 1960s to the 1990s. The changes outlined had profound impacts on the trade structure, resulting in some trades declining or even ceasing to be practised, whilst new trades developed. The changes in the strengths and the nature of the trades and the adoption of a practice of accepting older apprentices with a higher educational standard for a shorter training period also altered the hierarchy and the ‘craft consciousness’ of the Workshops. Undoubtedly, safer, more inclusive work practices empowered workers, making them more in control of their work place and their health, but not of their long term future for within seven years of the adoption of the OHS legislation, the State Government announced the Workshops’ closure and the State’s largest industrial workplace ceased operations. Some workers still had difficulty accepting the fact several years later.

¹¹ Exceptions are K. Bell, ‘The Midland Junction Railway Workshops. 1920-1939’ in J. Gregory, ed., *Studies in Western Australian History XI: Western Australia between the Wars*, June 1990, pp. 29-42; B. Oliver, ed. *Papers in Labour History No. 25. The WAGR/Westrail Midland Workshops*, September 2001.

² *The Westrail Workshops Oral History Interviews*, produced by Geraldine Harris and Mia Lindgren, Murdoch University, 2001.

³ In this paper, the term ‘craft consciousness’ is used in after the manner of T.M. Sheridan, *Mindful Militants. The Amalgamated Engineering Union in Australia, 1920-72*, Cambridge, London, 1975, pp. 57, 155, to denote a perceived hierarchy of skills among the trades.

⁵ Interview with N. Dragicevich, conducted by Sharleen Olsen, 26 April 1992.

⁶ Interviews with L. Pitsikas, conducted by G. O’Hanlon, 17 December 1997 and 7 January 1998. Pitsikas was a Planner in the Boiler Shop then, became Works Manager in 1968, CME 1976-80 when he retired

⁷ Interview with Steve Smith, conducted by Maxine Milne, 24 February 2003.

⁸ Sheridan, *Mindful Militants*, pp. 57, 155.

⁹ A. Williams, *Life in a Railway Factory*, Allan Sutton Publishing Ltd, 1986, p. 99.

¹⁰ Interview with Don Underdown, conducted by M. Milne, January-February 2002.

¹¹ *Minutes of the Apprentices Application and Selection Board*, held in the Archives of the Westrail Workshops History Project.

¹² Underdown, interview, *op. Cit.*, 30 January 2002.

¹³ Interview with Dave Moir, conducted by Hermione Stott, 23 April 2002.

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- ¹⁴ Underdown, interview, *op. Cit.*
- ¹⁵ Interview with Bob Wells, conducted by Dick Noyelle, 27 January 2003.
- ¹⁶ Interview with Bill Kirkham, conducted by Kate Ferguson, 7 May 2002.
- ¹⁷ *Ibid.*
- ¹⁸ Interview with Nicholas Dragicevich, conducted by Sharleen Olsen, 26 April 2002.
- ¹⁹ Interview with Sindy Hunter, conducted by Ricki Barnes, *The Westrail Workshops Oral History Interviews*, produced by Geraldine Harris and Mia Lindgren, Murdoch University, 2001.
- ²⁰ The author, 'The Peanut King and other pranks. Exploring working culture through apprentice initiations and rituals at the Western Australian Government Railway Workshops, Midland', unpublished paper, to be read at the UK-Australian Labour History Conference, Manchester University, UK, 18 July 2003.
- ²¹ Minutes of the Occupational Health & Safety (OH&S) Committee, in TLC Papers MN 117711, Series 4442A/33 Occupational Health & Safety 1984-89.
- ²² See, for example, *Western Australian Parliamentary Debates (WAPD)*, vol. 250, 1984, p. 1544.
- ²³ Judyth Watson (retired MLA), conversation with the author, 30 January 2001.
- ²⁴ Dragicevich, interview, *op. Cit.*
- ²⁵ Interview with Graeme Bywater, conducted by Nancy McKenzie, 17 December 2002.
- ²⁶ Interview with Dave Moir, conducted by H. Scott, 23 April 2002.
- ²⁷ Interview with Don Manning conducted by D. Yap, [date]
- ²⁸ 'Loss time injury': when one person loses one 8-hr shift. Don Manning, *ibid.*
- ²⁹ Steve Smith, interview *op. Cit.* Smith mentions two particularly horrible incidents. In one case, an apprentice was killed by a high pressure air hose and, in another, an apprentice was badly burned because fibre glass resin was applied to his genital area.
- ³⁰ Interview with Mae Jean Parker, conducted by Maxine Milne, 3 December 2002.